REMARKS

Applicant respectfully request favorable reconsideration and reexamination of this application.

Claims 1-4, 6, and 9-15 are amended. The amendments are supported, at least for example, by Figures 1-5 and 8-10.

Claims 7, 8, 17 and 18 are canceled.

Claim 19 is amended to correct a typographical error.

Claim 20 is new. Claim 20 is the original claim 3 rewritten in independent form which includes all of the limitations of the base claim, original claim 1, and original claim 2.

No new matter is added.

Claims 1-6, 9-16 and 19-20 are pending in this application.

Specification

A Replacement Translation, which is a true and correct translation of the PCT application, is attached to this paper. The Replacement Translation corrects an inadvertent error in the translation submitted originally.

A Substitute Specification, which includes editorial changes and idiomatic corrections, is attached to this paper.

35 U.S.C. 102 Rejection

Claims 1, 2, 4, 7-9, 11, 14-17, and 19 were rejected under 35 U.S.C. 102(e) as being anticipated by Blackburn et al. (US 6,761,816). Applicants respectfully traverse this rejection. The rejection states that Blackburn et al. disclose the claimed invention. Applicants respectfully disagree.

For clarification, Applicants respectfully direct the Examiner's attention to the following: The reference uses the term "first electrode" to designate the electrode closer to the inlet side of the channel (see column 10, lines 9-10 in conjunction with Figure 13B). In contrast, claim 1 requires the distance from the first electrode to the inlet opening to be greater than that of the second electrode to the inlet opening. In this respect, the "first electrode" of the reference is

situated similarly to the second electrode of claim 1. Similarly, the "second electrode" of the reference is situated similarly to the first electrode of claim 1.

With the above nomenclatures in mind, it can be determined that the reference teaches the opposite positioning of the electrodes of claim 1.

The reference teaches that the detection electrode is closer to the inlet side of the channel than an electrophoresis electrode (see Figures 13A and 13B). The reference also teaches that as an alternative, the detection electrode may be at the same position as the "first electrode."

In contrast, claim 1 requires that the first electrode comprise an electron transfer interface. As set forth above, the first electrode of claim 1 is situated similarly to the "second electrode" of the reference, not the "first electrode" of the reference. The second electrode of claim 1, which is situated similarly to the "first electrode" of the reference, does not require an electrode for providing electrons to the liquid reaction field or receiving electrons from the reaction field. The reference also does not teach or suggest situating an electron transfer interface as claimed.

Further, the reference teaches using a volume exclusion agent in the assay reagent mix (column 17, lines 12-45). The reference states that "the volume exclusion agents may not necessarily concentrate the sample close to the detection electrode; rather, they [only need to] decrease the effective diffusional volume that the target analyte experiences" (column 17, lines 22-25). The reference suggests that the detection chamber may be precoated with a volume exclusion agent (column 17, lines 34-35). Accordingly, the reference teaches that the reference device uses volume exclusion agent throughout the entire chamber, whether premixed with the sample liquid or precoating of the chamber. Thus, the reference teaches and suggests there is no preference as to the location of the volume exclusion agent. The reference fails to recognize the advantages of locating the volume exclusion agent only at certain locations of the chamber.

In contrast, claim 1 requires that concentration means for increasing the concentration of the solid component is located where solid component contacts the electron transfer interface in the liquid reaction field. Claim 1 further requires a water-absorbing layer that is positioned only downstream from the second electrode in a flow direction of the sample liquid. This is advantageous because by locating a water-absorbing layer as claimed allows flow of the sample

liquid from the sample inlet opening toward the second electrode but restricts flow of the sample liquid from the first electrode toward the exhaust opening.

Accordingly, the reference fails to disclose all of the requirements of claims 1. Therefore, the reference does not anticipate claim 1 and its dependent claims. A favorable reconsideration and reexamination is requested.

Claims 7, 8, and 17 are canceled. Applicants do not concede the correctness of the rejection.

35 U.S.C. 103 Rejection

Claims 3, 6, 10, 12, 13, and 18 were rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Blackburn et al. Applicants respectfully traverse the rejection.

Claims 3, 6, 10, 12, 13 should be considered allowable for at least the same reason as claim 1 from which they depend. A favorable reconsideration and reexamination is requested. Claim 18 is canceled, treating this rejection moot for this claim. Applicants do not concede the correctness of the rejection.

New Claim

Claim 20 is the original claim 3 rewritten in independent form which includes all of the limitations of the original claim 1, and the intervening original claim 2. Claim 20 should be considered allowable because Blackburn et al. fails to teach or suggest that the concentration means is in a part which contacts the "second electrode" of the reference. As set forth above, the rejection admits that the reference fails to disclose the claimed polymer having water absorption power of 10 to 500 g/g. Blackburn et al. fails to recognize the advantages of utilizing polymers with a specific range of absorption power. The large list of polymers disclosed by the reference further indicates the lack of recognition of the advantages of using polymers with specific range of absorption power. Therefore, Blackburn et al. fails to teach or suggest all of the elements of claim 20. Favorable reconsideration and reexamination is requested.

In view of the above amendments and remarks, Applicant respectfully requests a Notice of Allowance. If the Examiner believes a telephone conference would advance the prosecution of this application, the Examiner is invited to telephone the undersigned attorney-of record, Douglas P. Mueller (Reg. No. 30,300), at (612) 455-3804.

Respectfully submitted,

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